

=> fil reg; d que 19  
FILE 'REGISTRY' ENTERED AT 12:06:29 ON 18 JAN 2008  
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STRUCTURE FILE UPDATES: 17 JAN 2008 HIGHEST RN 1000264-70-9  
DICTIONARY FILE UPDATES: 17 JAN 2008 HIGHEST RN 1000264-70-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when  
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REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

L5 1516 SEA FILE=REGISTRY ABB=ON CCAKQEPER[-H] [-D] CF[-Y] QHKDDNP|VTDLTK  
V[-G] TECC[-H] [-G] [-D] LLECAD|EKPLLEKS[-H] CIAEVEN|CCAKQEPER[-N] [-  
N] CF[-E] QHKDDNP|VTDLTKV[-H] TECC[-E] [-H] [-H] LLECAD/SQSP  
L6 1 SEA FILE=REGISTRY ABB=ON EKPLLEKS[-H] CIAEVEN/SQSP  
L7 1 SEA FILE=REGISTRY ABB=ON VTDLTKV[-G] TECC[-H] [-G] [-D] LLECAD|VTD  
LTKV[-H] TECC[-E] [-H] [-H] LLECAD/SQSP  
L9 1 SEA FILE=REGISTRY ABB=ON L5 AND L6 AND L7

=> d rn cn sql kwic nte 19

L9 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN  
RN 657086-10-7 REGISTRY  
CN Serum albumin deriv. (human) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 13: PN: WO2004011499 PAGE: 37 claimed sequence  
SQL 585

SEQ 51 KTCVADESAE NCDKSLXTLF GDKLCTVATL RETYGEMADC CAKQEPERXX  
=====

101 CFXQHKDDNP NLPRLVRPEV DVMCTAFHDN EETFLKKYLY EIARRXPYFY  
=====

201 ASLQKFGERA FKAWAVARLS QRFPAEFAE VSKLVTDLTK VXTECCXXXL  
=====

251 LECADDRADL AKYICENQDS ISSKLKECCE KPILLEKSXCI AEVENDEMPA  
=====

HITS AT: 90-110, 235-255, 280-295  
NTE

type	location	description
uncommon	Aaa-30	-

uncommon	Aaa-67	-	-
uncommon	Aaa-99	-	-
uncommon	Aaa-100	-	-
uncommon	Aaa-103	-	-
uncommon	Aaa-146	-	-
uncommon	Aaa-242	-	-
uncommon	Aaa-247	-	-
uncommon	Aaa-248	-	-
uncommon	Aaa-249	-	-
uncommon	Aaa-288	-	-

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=> fil capl; d que l10

FILE 'CAPLUS' ENTERED AT 12:06:54 ON 18 JAN 2008

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FILE COVERS 1907 - 18 Jan 2008 VOL 148 ISS 4

FILE LAST UPDATED: 17 Jan 2008 (20080117/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

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L5      1516 SEA FILE=REGISTRY ABB=ON  CCAKQEPER[-H][-D]CF[-Y]QHKDDNP|VTDLTK
        V[-G]TECC[-H][-G][-D]LLECAD|EKPLLEKS[-H]CIAEVEN|CCAQKQEPER[-N][-
        N]CF[-E]QHKDDNP|VTDLTKV[-H]TECC[-E][-H][-H]LLECAD/SQSP
L6      1 SEA FILE=REGISTRY ABB=ON  EKPLLEKS[-H]CIAEVEN/SQSP
L7      1 SEA FILE=REGISTRY ABB=ON  VTDLTKV[-G]TECC[-H][-G][-D]LLECAD|VTD
        LTKV[-H]TECC[-E][-H][-H]LLECAD/SQSP
L9      1 SEA FILE=REGISTRY ABB=ON  L5 AND L6 AND L7
L10     1 SEA FILE=CAPLUS ABB=ON  L9

```

*Registry answer set crossed into  
CAPLUS to get reference*

=> => d ibib abs hitind l10

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:101193 CAPLUS Full-text

DOCUMENT NUMBER: 140:177081

TITLE: Design of mutated forms of human serum albumin with altered metal binding characteristics for pharmacological or cell culture uses

INVENTOR(S): Berezenko, Stephen; Sadler, Peter John; Stewart, Alan James; Blindauer, Claudia

PATENT ASSIGNEE(S): University Court of the University of Edinburgh, UK;  
Delta Biotechnology Limited  
SOURCE: PCT Int. Appl., 63 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011499	A1	20040205	WO 2003-GB3199	20030728
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493347	A1	20040205	CA 2003-2493347	20030728
AU 2003248949	A1	20040216	AU 2003-248949	20030728
EP 1525222	A1	20050427	EP 2003-771166	20030728
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1684980	A	20051019	CN 2003-822986	20030728
JP 2006515156	T	20060525	JP 2004-523941	20030728
ZA 2005000888	A	20060222	ZA 2005-888	20050131
US 2007185315	A1	20070809	US 2005-523312	20051025
PRIORITY APPLN. INFO.:			GB 2002-17347	A 20020726
			WO 2003-GB3199	W 20030728

AB The present invention relates to mutated forms of human serum albumin, which display altered metal binding and/or other characteristics with respect to a native albumin from which the mutant has been derived, as well as uses of such mutant albumins in the medical field or in growth of cells in culture.

IC ICM C07K014-765

CC 6-3 (General Biochemistry)

Section cross-reference(s): 1, 3, 9, 13, 63

IT 657086-10-7P, Serum albumin derivative (human)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(amino acid sequence; design of mutated forms of human serum albumin with altered metal binding characteristics for pharmacol. or cell culture uses)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## SEARCH HISTORY

=&gt; d his nofile

(FILE 'HOME' ENTERED AT 11:53:43 ON 18 JAN 2008)

FILE 'LREGISTRY' ENTERED AT 11:53:53 ON 18 JAN 2008

L1 0 SEA ABB=ON CCAKQEPER[-H][-D]CF[-Y]QHKDDNP|VTDLTKV[-G]TECC[-H] [-G] [-D]LLECAD|EKPLLEKS[-H]CIAEVEN/SQSP

L2 0 SEA ABB=ON CCAKQEPER[-H][-D]CF[-Y]QHKDDNP|VTDLTKV[-G]TECC[-H] [-G] [-D]LLECAD|EKPLLEKS[-H]CIAEVEN/SQSFP

L3 0 SEA ABB=ON CCAKQEPER[-H][-D]CF[-Y]QHKDDNP|VTDLTKV[-G]TECC[-H] [-G] [-D]LLECAD|EKPLLEKS[-H]CIAEVEN|CCAKQEPER[-N] [-N]CF[-E]QHKDDN P|VTDLTKV[-H]TECC[-E] [-H] [-H]LLECAD/SQSFP

FILE 'REGISTRY' ENTERED AT 11:58:15 ON 18 JAN 2008

L4 1549 SEA ABB=ON CCAKQEPER[-H][-D]CF[-Y]QHKDDNP|VTDLTKV[-G]TECC[-H] [-G] [-D]LLECAD|EKPLLEKS[-H]CIAEVEN|CCAKQEPER[-N] [-N]CF[-E]QHKDDN P|VTDLTKV[-H]TECC[-E] [-H] [-H]LLECAD/SQSFP

L5 1516 SEA ABB=ON CCAKQEPER[-H][-D]CF[-Y]QHKDDNP|VTDLTKV[-G]TECC[-H] [-G] [-D]LLECAD|EKPLLEKS[-H]CIAEVEN|CCAKQEPER[-N] [-N]CF[-E]QHKDDN P|VTDLTKV[-H]TECC[-E] [-H] [-H]LLECAD/SQSP  
SAVE TEMP L5 ROO312SEQ1/A  
SAVE TEMP L4 ROO312SEQ2/A

L6 1 SEA ABB=ON EKPLLEKS[-H]CIAEVEN/SQSP  
SAVE TEMP L6 ROO312SEQ3/A

L7 1 SEA ABB=ON VTDLTKV[-G]TECC[-H] [-G] [-D]LLECAD|VTDLTKV[-H]TECC[-E] [-H] [-H]LLECAD/SQSP  
SAVE TEMP L7 ROO312SEQ4/A

L8 1 SEA ABB=ON L6 AND L7

L9 1 SEA ABB=ON L5 AND L6 AND L7

FILE 'CAPLUS' ENTERED AT 12:04:58 ON 18 JAN 2008

L10 1 SEA ABB=ON L9  
D SCAN TI

FILE 'REGISTRY' ENTERED AT 12:06:29 ON 18 JAN 2008

D QUE L9  
D RN CN SQL KWIC NTE L9

FILE 'CAPLUS' ENTERED AT 12:06:54 ON 18 JAN 2008

D QUE L10  
D SCAN  
D IBIB ABS HITIND L10

=&gt;

## WEST Search History





DATE: Tuesday, February 12, 2008

Hide?	Set Name	Query	Hit Count
		<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L17	L15 and Asn	0
<input type="checkbox"/>	L16	L15 and Asn adj 99	0
<input type="checkbox"/>	L15	WO 9928348	3
<input type="checkbox"/>	L14	L13 and mutation	14
<input type="checkbox"/>	L13	L12 and Asn adj 99	14
<input type="checkbox"/>	L12	human serum albumin	20264
<input type="checkbox"/>	L11	L2 and Asn adj 99	0
<input type="checkbox"/>	L10	L2 and Asn	208
<input type="checkbox"/>	L9	Berezenko S	11
<input type="checkbox"/>	L8	L2 and His67Ala	2
<input type="checkbox"/>	L7	L2 and Asn99His	2
<input type="checkbox"/>	L6	L2 and Asn99Asp	2
<input type="checkbox"/>	L5	L2 and Asn 99Asp	0
<input type="checkbox"/>	L4	L2 and Asn 99His	1
<input type="checkbox"/>	L3	L2 and Asn 99 His	0
<input type="checkbox"/>	L2	mutant same human same serum same albumin	493
		<i>DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L1	US 5728553	12

END OF SEARCH HISTORY

d his

(FILE 'HOME' ENTERED AT 09:13:12 ON 12 FEB 2008)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ESBIODASE, FOMAD, ...' ENTERED AT 09:13:29 ON 12 FEB 2008

L1	5522 S HUMAN SERUM ALBUMIN AND MUTATION AND ASN
L2	4764 DUP REM L1 (758 DUPLICATES REMOVED)
L3	2417 S L2 AND MUTATION AND ALTERED AND METAL AND BINDING AND AFFINI
L4	1018 S L3 AND ZINC
L5	964 S L4 AND 90 AND IDENTICAL
L6	0 S L5 AND PHRAMACEUTICAL
L7	0 S L4 AND PHRAMACEUTICAL
L8	943 S L5 AND PHARMACEUTICAL
L9	992 S L4 AND PHARMACEUTICAL
L10	943 S L8 AND L9
L11	1 S BEREZENKO S
L12	983 S L4 AND MUTATION AND HIS
L13	685 S L12 AND ADHESION AND CELL AND GROWTH
L14	685 DUP REM L13 (0 DUPLICATES REMOVED)

# WEST Search History





DATE: Tuesday, February 12, 2008

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=ADJ	
<input type="checkbox"/>	L29	L25 and mutation same His67	1
<input type="checkbox"/>	L28	L25 and mutation same Asn99	1
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<input type="checkbox"/>	L26	L25 and mutation Asn 99	0
<input type="checkbox"/>	L25	human serum albumin	20264
<input type="checkbox"/>	L24	His 67 and mutation and human albumin	5
<input type="checkbox"/>	L23	Asn99 and mutation and human albumin	2
<input type="checkbox"/>	L22	L19 and metal same binding	3
<input type="checkbox"/>	L21	L19 and metal same binding	3
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<input type="checkbox"/>	L19	US 6274305	6
<input type="checkbox"/>	L18	L15 and Asn	0
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<input type="checkbox"/>	L16	L15 and Asn adj 99	0
<input type="checkbox"/>	L15	WO 9928348	3
<input type="checkbox"/>	L14	L13 and mutation	14
<input type="checkbox"/>	L13	L12 and Asn adj 99	14
<input type="checkbox"/>	L12	human serum albumin	20264
<input type="checkbox"/>	L11	L2 and Asn adj 99	0
<input type="checkbox"/>	L10	L2 and Asn	208
<input type="checkbox"/>	L9	Berezenko S	11
<input type="checkbox"/>	L8	L2 and His67Ala	2
<input type="checkbox"/>	L7	L2 and Asn99His	2
<input type="checkbox"/>	L6	L2 and Asn99Asp	2
<input type="checkbox"/>	L5	L2 and Asn 99Asp	0
<input type="checkbox"/>	L4	L2 and Asn 99His	1
<input type="checkbox"/>	L3	L2 and Asn 99 His	0
<input type="checkbox"/>	L2	mutant same human same serum same albumin	493
		DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ	
<input type="checkbox"/>	L1	US 5728553	12





! FINDPATTERNS on geneseq:\* allowing 0 mismatches

! 1 CCAKQEPER-N-NCF-EQHKDDNPX{ }VTDLTKV-HTECC-E-H-HLLECAD

ADJ57704 ck: 5922 len: 585 ! Adj57704 Mutant human serum albumin, 5/2004

1 CCAKQEPER-N-NCF-EQHKDDNPX{ }VTDLTKV-HTECC-E-H-HLLECAD ← pattern searched

90: GEMAD CCAKQEPERXXCFQHKDDNPX{124}VTDLTKV-HTECC-E-H-HLLECAD ← pattern matched

matching portion of database sequence

Databases searched:

EMBL, Release 1.0, Released on 18Jan2007, Formatted on 18Jan2007

Total finds: 1  
Total length: 488,905,763  
Total sequences: 2,780,430  
CPU time: 15:31.32

Xaa's as defined in CRF